

REMARKS/ARGUMENTS

Claims 46-51 are newly added. Claims 18-51 are now pending in the application. Reexamination and reconsideration of the application are requested.

Claims 18, 19, 25-29, 37, 38, 40, 42, and 44 were rejected under 35 USC § 102(b) as anticipated by US Patent No. 5,819,410 to Furusawa et al. ("Furusawa"). Applicants respectfully traverse this rejection.

In the rejection of independent claim 18, the hollow portion 20a of positioning holder 20 and the pipes 41 of Furusawa were equated with the recesses of claim 18. The hollow portion 20A and the pipes 41, however, lack several features of the recesses of claim 18.

First, claim 18 refers to "electrical connections between said elongate spring contacts and said rigid, conductive recesses," which implies that the recesses are electrically conductive because an electrical connection could not be established with the recesses unless the recesses were electrically conductive. (New dependent claim 46 expressly states that the recesses are electrically conductive.) Neither the hollow portion 20a nor the pipes 41 are "electrically conductive" as required by claim 18. For this reason alone, Furusawa fails to anticipate claim 18.

Second, neither the hollow portion 20a nor the pipes 41 has a "bottom portion" (1) against which the free ends of the spring contacts are pressed and (2) that prevents said free ends [of the spring contacts] from passing through said substrate," as also required by claim 18. The test pins 32 of Furusawa (which were equated with the elongate spring contacts of claim 18) are not pressed against any part of the hollow portion 20a or the pipes 41, and no part of the hollow portion 20a or the pipes 41 prevents the pins 32 from passing through the positioning holder 20 (which was equated with the substrate of claim 18). Rather, the test pins 32 are pressed against and stopped by the chip electrodes 2a, which are not part of either the hollow portion 20a or the pipes 41. Furusawa therefore fails to disclose recesses with "bottom portions." For this additional reason, Furusawa fails to anticipate claim 18.

Third, as mentioned above, claim 18 requires formation of "electrical connections between said elongate spring contacts and said rigid, conductive recesses." As shown in Figures 1 and 3 of Furusawa, pins 32 do not contact and therefore do not form electrical connections with hollow portion 20a. Moreover, pipes 41 are expressly described in Furusawa as holes formed in an insulating material. (Furusawa col. 5, lines 32-50.) Because pipes 41 are not electrically

conductive, pins 32 cannot form electrical connections with pipes 41. For this reason alone, claim 18 distinguishes over Furusawa.

For all of the foregoing reasons, independent claim 18 distinguishes over Furusawa.

Claims 19 and 25 depend from claim 18 and therefore also distinguish over Furusawa. Moreover, claims 19 and 25 recite additional features that further distinguish over Furusawa. For example, claim 19 describes the electronic device as a "semiconductor device." Nowhere does Furusawa describe base 10 as any type of semiconductor device. Claim 19 thus further distinguishes over Furusawa.

Independent claim 26 includes a step of "pressing tips of ones of said spring contact elements against ones of said rigid conductive terminals and thereby compressing said spring contact elements and generating in said spring contact elements spring reaction forces." Furusawa does not teach compressing pins 32. In fact, if anything, Furusawa teaches away from compressing pins 32. (See Furusawa Figures 6A and 6B and col. 1, lines 44-60.) Claim 26 thus distinguishes over Furusawa.

Moreover, the pins 32 of Furusawa are not pressed against any part of the positioning holder 20 (which was equated with the substrate of claim 26). For this additional reason, the rejection of claim 26 as anticipated by Furusawa should be withdrawn.

Claims 27-29, 37, 38, 40, 42, and 44 depend from claim 26 and therefore also distinguish over Furusawa. Moreover, claims 27-29 and 37-40 recite additional features that further distinguish over Furusawa.

For example, claims 28, 29, and 38 describe the terminals against which the tips of the spring contact elements are pressed as recesses with bottoms. As discussed above, neither the hollow portion 20a nor the pipes 41 of Furusawa include a bottom against which pins 32 are pressed. Claims 28, 29, and 38 thus further distinguish over Furusawa.

As another example, in rejecting claims 40 and 44, the chip 2 of Furusawa was equated with the second electronic device of claims 40 and 44. Claims 40 and 44, however, state that the substrate comprises the second electronic device, and the claims from which claims 40 and 44 depend require that the substrate have recesses. Neither hollow portion 20a nor pipes 41 (which were equated with the recesses of claims 40 and 44) are part of chip 2, and indeed, as shown in Figure 3, chip 2 has no recesses. Therefore, chip 2 of Furusawa does not met the requirements of the second electronic device recited in claims 40 and 44.

Claims 20-24, 30-36, 39, 41, 43, and 45 were rejected under 35 USC § 103(a) as obvious in view of Furusawa, US Patent No. 5,038,467 to Murphy ("Murphy"), US Patent No. 4,533,199 to Feldberg ("Feldberg"), and US Patent No. 6,449,838 to Murakami ("Murakami"). Applicants respectfully traverse this rejection.

In rejecting claims 20-24, 30-36, 39, 41, 43, and 45, it is acknowledged that Furusawa fails to disclose cone shaped, concave shaped, V-shaped, U-shaped, and trapezoidal shaped recesses; recesses that taper inwardly from the entrance to the recess; and plating on the recess, including plating that forms the bottom of the recess. It is alleged, however, that it would have been obvious to modify Furusawa in view of Murphy, Feldberg, and Murakami to include such features "for the purpose of better coupling with the substrate and providing fine conductors on and in the recesses."

The positioning holder 20 of Furusawa was equated with the substrate of claims 18 and 26, yet there would appear to be no improvement in the "coupling" of the positioning holder 20 to be gained by modifying the shape of or introducing plating into either the hollow portion 20a or the pipes 41. Because "better coupling with the" positioning holder 20 would not be achieved by modifying the shape of or introducing plating into the hollow portion 20a or the pipes 41, "better coupling with the" positioning portion 20a does not provide motivation for modifying the shapes of or introducing plating into the hollow portion 20a or the pipes 41 of Furusawa.

Moreover, the recesses of claims 18 and 26 were equated with the hollow portion 20a and the pipes 41 of Furusawa. There would appear to be no reason or advantage, however, in "providing fine conductors on and in the" the hollow portion 20a or the pipes 41 of Furusawa. Indeed, there would be no purpose in introducing "fine conductors" into the hollow portion 20a, and Furusawa expressly describes the entire pipe assembly 40 as being insulative (Furusawa col. 5, line 32) and thus teaches away from introducing any type of conductor into the pipes 41.

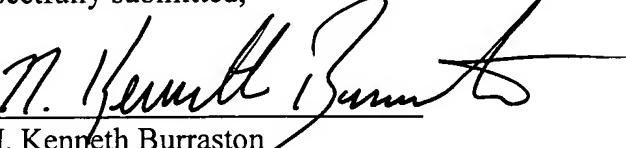
For all of the foregoing reasons, the prior art does not provide motivation for changing the shapes of or introducing plating into the hollow portion 20a or pipes 41 of Furusawa. Therefore, claims 20-24, 30-36, 39, 41, 43, and 45 patentably distinguish over the combination of Furusawa, Murphy, Feldberg, and Murakami.

New claims 46-51 depend from claims 18 or 26 and therefore distinguish over the prior art of record. Claims 47, 49, and 50 further distinguish over Furusawa because Furusawa does

not teach or suggest that base 10 is a semiconductor device or a semiconductor die comprising an integrated electronic circuit.

In view of the foregoing, Applicants submit that all of the claims are allowable and the application is in condition for allowance. If the Examiner believes that a discussion with Applicants' attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 323-5934.

Respectfully submitted,

By 
N. Kenneth Burraston
Reg. No. 39,923

Date: June 3, 2005

Kirton & McConkie
1800 Eagle Gate Tower
60 East South Temple
P.O. Box 45120
Salt Lake City, Utah 84111-1004
Telephone: (801) 323-5934
Fax: (801) 321-4893